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Evaluating Your Firm's Injury & Illness Record, 1978

Transportation and Public Utilities Industries

COMPLETED

U.S. Department of Labor
Bureau of Labor Statistics
April 1980

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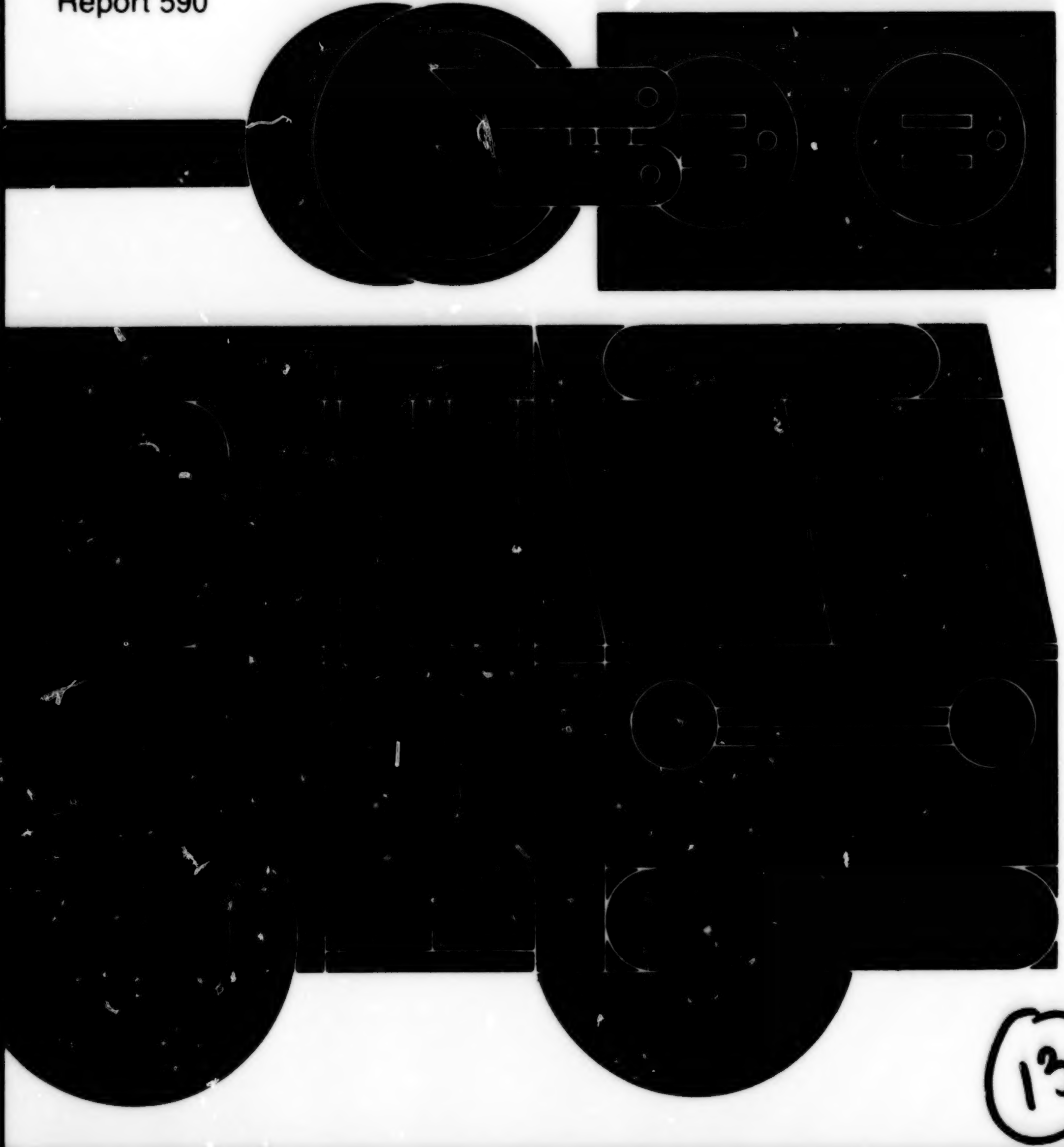

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U.S. Department of Labor
Ray Marshall, Secretary

Bureau of Labor Statistics
Janet L. Norwood
Commissioner
April 1980

Preface

Data for this guide were collected in accordance with the provisions of the Occupational Safety and Health Act of 1970. The guide was prepared in the Office of Occupational Safety and Health Statistics, Theodore J. Golonka, Assistant Commissioner, by the staff of the Division of Periodic Surveys, under the direction of William Mead.

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Evaluating Your Firm's Injury and Illness Record

As an employer, you know the value of a good safety record. Work-related injuries and illnesses are expensive both in decreased productivity and increased premiums for workers' compensation insurance. Add to this the sometimes permanent loss of a skilled technician's services and the effect on employee morale, and it becomes clear that a good occupational safety and health program is good business.

Incidence rates are a way to measure and compare a firm's safety performance with that of other companies. For example, if your firm had 25 employees and 3 injuries and illnesses during 1978 and your industry had a total of 20,000 employees and 1,450 injuries and illnesses, you may compare your performance to that of your industry. Computing incidence rates shows the equivalent numbers of injuries and illnesses per 100 full-time employees for both the firm and the industry. An explanation of how to compute an incidence rate begins below.

How to compare your firm's incidence rate to national rates for your industry and employment-size group is explained on pages 2 through 5. Incidence rates also may indicate the relative level of injuries and illnesses among different industries, firms, or operations within a single firm. Because a common base and a specific period of time are involved, these rates can help determine both problem areas and progress in preventing work-related injuries and illnesses.

How to compute your firm's incidence rate

You can compute an incidence rate of occupational injuries and illnesses for your firm quickly and easily. The formula requires:

(a) *The number of injuries and illnesses during 1978*. Count the number of line entries of recordable cases from your Log and Summary of Occupational Injuries and Illnesses, OSHA No. 200, or refer to the TOTALS line for the yearly total for fatalities, injuries and illnesses with lost workdays, and injuries and illnesses without lost workdays.

(b) *The number of hours all employees actually worked during 1978*. Use payroll or other time records. The "hours worked" figure should not include any nonwork time, even though paid, such as vacation, sick leave, holidays, etc. (If actual hours worked are not available for employees paid on commission, by salary, or by the mile, etc., hours worked may be estimated on the basis of scheduled hours or 8 hours per workday.) An incidence rate of injuries and illnesses may be computed from the following formula:

$$\frac{\text{(a) Number of injuries and illnesses} \times 200{,}000}{\text{(b) Employee hours worked}} = \text{Incidence rate}$$

(The 200,000 hours in the formula represents the equivalent of 100 employees working 40 hours per week, 50 weeks per year, and provides the standard base for the incidence rates.)

Here is an example of how to compute an incidence rate:

> United Refuse Co. experienced 7 recordable injuries and illnesses during 1978 (from log and summary, OSHA No. 200). The total hours worked by all employees during this period was 73,000 (from payroll or other time records).

$$\frac{7 \times 200{,}000}{73{,}000} = 19.2$$

Therefore, United Refuse experienced a rate of 19.2 injuries and illnesses per 100 full-time employees during 1978.

To compute an incidence rate for your own firm, enter the data in the appropriate boxes below and complete the formula.

Number of injuries and
illnesses in your firm in 1978

Incidence rate
for your firm

$$\frac{\boxed{} \times 200{,}000}{\boxed{}} = \boxed{}$$

Hours worked by all your
employees in 1978

(Round to the
nearest tenth)

The incidence rate for your firm is the number of injuries and illnesses per 100 full-time employees during 1978.

You may also be interested in computing incidence rates for previous years to see how your rate has changed. Or in computing your rate by department, or on a monthly or other seasonal basis to measure differences caused by new safety practices or other factors. The formula remains the same; be sure, however, that the number of injuries and illnesses corresponds to hours worked for the department or time frame you are using.

What your incidence rate tells

Incidence rates take on more meaning when one firm is compared with others in its industry and employment-size group. The example for United Refuse shows how to make such a comparison. The table which begins on page 6 provides the information needed.

How United Refuse evaluated its safety and health performance:

United Refuse is primarily engaged in the collection and disposal of refuse; data for this industry are included under sanitary services.

Average employment for United Refuse during 1978 was 39; comparable data are shown in the employment-size group 20 to 49.

Appropriate data for that industry and employment-size group are indicated in the following excerpt from the incidence rates table:

Occupational injury and illness incidence rates for transportation and public utilities industries by employment size and quartile distribution, United States, 1978

Industry and employment size	Incidence rates per 100 full-time workers			
	Column A	Column B	Column C	Column D
	Average incidence rates for all establishments: (mean)	One-quarter of the establishments had a rate lower than or equal to: (1st quartile)	One-half of the establishments had a rate lower than or equal to: (median)	One-quarter of the establishments had a rate higher than or equal to: (3rd quartile)
Electric, gas, and sanitary services				
Sanitary services:				
All sizes	25.9	0.0	0.0	23.1
1 to 19	17.2	0.0	0.0	13.2
20 to 49	27.8	10.1	23.6	41.5
50 to 99	29.1	12.5	22.9	41.0
100 to 249	38.9	23.8	38.3	56.6
250 to 499	34.8	(1)	(1)	(1)

United Refuse had a computed incidence rate of 19.2 (see page 2). This rate indicates that in 1978, employees in United Refuse experienced 19.2 injuries and illnesses per 100 full-time employees, or in other words, if 100 employees worked full time in United Refuse about 19 injuries and illnesses would have been recorded during the year.

Column A of the table shows an average of 27.8 injuries and illnesses per 100 full-time workers occurring in establishments in the same industry and employment-size group. The incidence rate for United Refuse was thus, about 31 percent lower than the average.

The 27.8 in column A may reflect a few reporting units having an unusually high or low number of cases, however. If the number of recordable cases in five establishments was 6, 6, 8, 10, and 50, for example, the average for the group would be 16, even though most of the firms had fewer than 10 cases. Columns B, C, and D show how establishments within an industry are distributed by rate. Since the 19.2 rate for United Refuse was higher than the 10.1 rate in column B, the company had a higher rate than at least one-quarter of the establishments. Since its 19.2 rate is less than the 23.6 rate in column C, the company had a lower rate than at least one-half of the establishments.

How to evaluate your performance:

Select the industry from the table that included your firm's primary activity in 1978. Use the average employment for your firm in 1978 to determine the appropriate size group from those shown for your industry in the table. (To get average employment, add the number of employees during each payroll period and divide the sum by the number of such payroll periods.) If data are not available for your firm's employment-size group, use the category closest to your firm's employment level, or the all-sizes category for your industry in your evaluation.

Referring to the table which begins on page 6, complete the following:

Industry and employment-size group for your firm in 1978	Rate from col. A	Rate from col. B	Rate from col. C	Rate from col. D

Your rate		Rate from column A
	may be compared to	
Incidence rate for your firm as computed on page 2 of this guide		Average number of injuries and illnesses per 100 full-time workers during 1978 in your industry and employment-size group.

Next, see where the incidence rate for your establishment falls in the range of other establishments in the same industry and employment-size group; use data in columns B, C, and D to check one of the four statements:

____ (1) Your rate is lower than or equal to the rate in column B.

Meaning: Your firm had a rate lower than at least three-quarters of the establishments.

____ (2) Your rate is higher than the rate in column B, but lower than the rate in column C.

Meaning: Your firm had a rate higher than one-quarter of the establishments, but your rate was still lower than the rates for one-half of the establishments.

____ (3) Your rate is higher than or equal to the rate in column C, but lower than the rate in column D.

Meaning: Your firm had a rate higher than at least one-half of the establishments, but your rate was still lower than the rates for one-quarter of the establishments.

____ (4) Your rate is higher than or equal to the rate in column D.

Meaning: Your firm had a rate higher than at least three-quarters of the establishments.

Perhaps your safety and health experience during 1978 was much better than that of most of the firms in your industry and employment-size group. Or you may have found that our safety and health performance was below par. In either case, your OSHA self-evaluation is still not complete.

Past performance is the best guide to improve your safety and health program. Reviewing your records may help to identify characteristics common to several cases. For example, several injuries may have resulted from the use of a particular type of equipment, or slips and falls may have increased after you began using a different type of scaffold. To spot such occurrences, group cases by type of accident, equipment or tools involved, the nature of the injury sustained, or any other kind of classification which seems applicable. Once an unsafe condition or act is identified, you can take steps to eliminate it.

Employers, employees, and others benefit from an effective job safety and health program. During 1978, nearly 462,900 recorded injuries and illnesses occurred in the transportation and public utilities industries. About 264,500 lost workday cases resulted in a loss of around 18,830 employee years of work. You can help reduce this toll.

If you have any questions concerning this guide or any other aspect of occupational safety and health statistics, including OSHA recordkeeping requirements, please contact the Bureau of Labor Statistics Regional Office in your area. Addresses and phone numbers for all Regional Offices are listed on the back cover.

Occupational injury and illness incidence rates for transportation and public utilities industries by employment size and quartile distribution, United States, 1978

Industry and employment size	Incidence rates per 100 full-time workers			
	Column A	Column B	Column C	Column D
	Average incidence rates for all establishments: (mean)	One-quarter of the establishments had a rate lower than or equal to: (1st quartile)	One-half of the establishments had a rate lower than or equal to: (median)	One-quarter of the establishments had a rate higher than or equal to: (3rd quartile)
Communication:				
All sizes	2.7	0.0	0.0	2.5
1 to 19	2.4	.0	.0	.0
20 to 49	3.3	.0	.0	2.6
50 to 99	2.8	.0	.8	4.3
100 to 249	3.1	.5	2.5	4.6
250 to 499	2.9	1.1	2.9	4.7
500 to 999	1.3	.9	2.3	3.7
1,000 to 2,499	2.1	1.5	2.8	4.2
2,500 and over	3.1	(1)	(1)	(1)
Electric, gas, and sanitary services:				
All sizes	9.0	.0	.0	11.2
1 to 19	9.4	.0	.0	.0
20 to 49	12.5	.5	8.1	17.2
50 to 99	12.4	3.7	9.3	16.7
100 to 249	10.3	3.6	7.8	13.8
250 to 499	9.2	3.7	7.4	12.4
500 to 999	7.8	3.8	7.0	9.8
1,000 to 2,499	7.1	2.8	5.7	10.5
2,500 and over	7.4	3.5	7.1	11.2
Sanitary services:				
All sizes	25.9	.0	.0	23.1
1 to 19	17.2	.0	.0	13.2
20 to 49	27.8	10.1	23.6	41.5
50 to 99	29.1	12.5	22.9	41.0
100 to 249	38.9	23.8	38.3	56.6
250 to 499	34.8	(1)	(1)	(1)
Local and interurban passenger transit:				
All sizes	8.7	.0	.0	.0
1 to 19	1.4	.0	.0	.0
20 to 49	4.8	.0	.0	3.2
50 to 99	8.0	.0	2.5	10.9
100 to 249	10.5	1.9	8.0	15.1
250 to 499	14.5	6.4	8.9	18.9
500 to 999	14.6	8.7	14.1	21.2
1,000 to 2,499	18.8	(1)	(1)	(1)
Pipelines, except natural gas:				
All sizes	4.7	.0	.0	2.6
1 to 19	3.8	.0	.0	.0
20 to 49	6.4	.0	4.2	10.3
50 to 99	5.1	.0	3.6	8.7
100 to 249	4.0	(1)	(1)	(1)
250 to 499	1.5	(1)	(1)	(1)
Railroad transportation:				
All sizes	12.0	.0	1.2	12.6
1 to 19	6.5	.0	.0	.0
20 to 49	12.5	.0	5.3	14.1
50 to 99	15.0	3.9	5.9	18.4
100 to 249	12.9	5.6	11.2	17.7
250 to 499	13.5	7.0	11.6	18.7
500 to 999	13.3	8.9	12.5	16.6
1,000 to 2,499	12.8	9.6	12.9	16.8
2,500 and over	11.5	7.7	11.0	11.9

See footnotes at end of table.

Occupational injury and illness incidence rates for transportation and public utilities industries by employment size and quartile distribution, United States, 1978—Continued

Industry and employment size	Incidence rates per 100 full-time workers			
	Column A	Column B	Column C	Column D
	Average incidence rates for all establishments: (mean)	One-quarter of the establishments had a rate lower than or equal to: (1st quartile)	One-half of the establishments had a rate lower than or equal to: (median)	One-quarter of the establishments had a rate higher than or equal to: (3rd quartile)
Transportation by air:				
All sizes	13.4	0.0	0.0	11.6
1 to 19	7.6	.0	.0	.0
20 to 49	9.1	.0	4.7	13.6
50 to 99	15.0	3.1	10.2	23.5
100 to 249	14.8	5.7	12.1	21.6
250 to 499	18.8	6.8	13.7	28.1
500 to 999	16.5	8.1	13.7	22.0
1,000 to 2,499	12.7	5.9	11.1	17.5
2,500 and over	12.5	8.3	13.5	19.1
Transportation services:				
All sizes	5.5	.0	.0	.0
1 to 19	.8	.0	.0	.0
20 to 49	5.1	.0	.0	1.8
50 to 99	8.6	.0	.0	9.1
100 to 249	12.3	.0	2.8	18.9
250 to 499	14.7	(1)	(1)	(1)
Miscellaneous transportation services:				
All sizes	17.0	.0	.0	1.7
20 to 49	11.7	.0	.0	15.8
50 to 99	27.1	7.5	25.6	30.4
100 to 249	26.3	(1)	(1)	(1)
Trucking and warehousing				
Public warehousing:				
All sizes	15.5	.0	.0	11.9
1 to 19	7.4	.0	.0	.0
20 to 49	16.2	.5	12.6	25.3
50 to 99	18.1	7.0	17.0	27.3
100 to 249	22.2	7.7	20.5	30.7
250 to 499	17.7	(1)	(1)	(1)
Trucking, local and long distance:				
All sizes	16.3	.0	.0	11.9
1 to 19	8.7	.0	.0	.0
20 to 49	14.2	.0	9.8	21.4
50 to 99	19.6	9.0	17.2	27.4
100 to 249	20.6	10.6	18.7	28.7
250 to 499	20.1	10.9	18.1	26.4
500 to 999	20.5	11.4	18.1	27.5
1,000 to 2,499	17.5	7.9	16.2	26.4
2,500 and over	20.2	(1)	(1)	(1)
Trucking terminal facilities:				
All sizes	17.9	.0	.0	17.7
20 to 49	14.1	(1)	(1)	(1)
50 to 99	21.3	(1)	(1)	(1)
100 to 249	26.1	(1)	(1)	(1)

See footnotes at end of table.

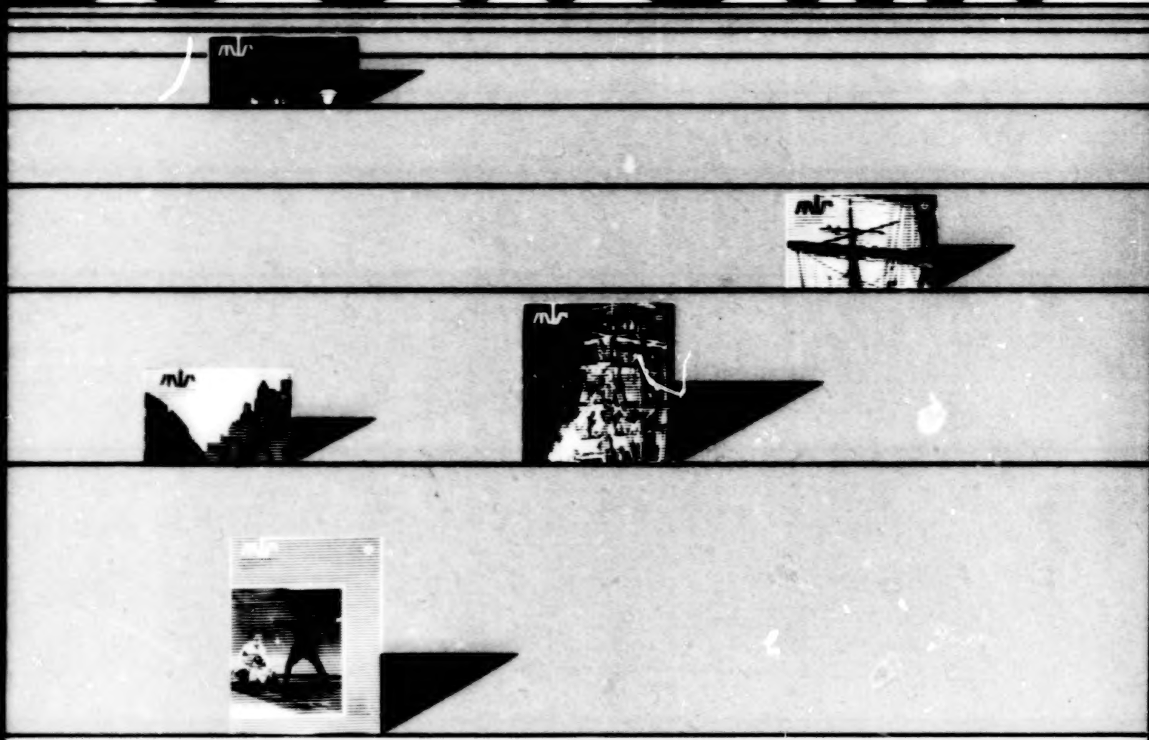
Occupational injury and illness incidence rates for transportation and public utilities industries by employment size and quartile distribution, United States, 1978—Continued

Industry and employment size	Incidence rates per 100 full-time workers			
	Column A	Column B	Column C	Column D
	Average incidence rates for all establishments: (mean)	One-quarter of the establishments had a rate lower than or equal to: (1st quartile)	One-half of the establishments had a rate lower than or equal to: (median)	One-quarter of the establishments had a rate higher than or equal to: (3rd quartile)
Water transportation:				
All sizes	14.4	0.0	0.0	7.4
1 to 19	7.0	.0	.0	.0
20 to 49	9.6	.0	3.6	21.4
50 to 99	12.3	.2	8.6	23.5
100 to 249	15.7	2.6	17.0	34.6
250 to 499	17.9	7.5	23.3	37.0
500 to 999	22.4	16.2	27.0	40.4
1,000 to 2,499	20.4	(1)	(1)	(1)
Water transportation services:				
All sizes	21.9	.0	.0	9.5
1 to 19	8.3	.0	.0	.0
20 to 49	18.3	.0	12.1	30.7
50 to 99	19.9	3.9	17.5	32.7
100 to 249	28.6	17.0	31.4	47.9
250 to 499	31.3	19.9	29.4	43.5
500 to 999	25.0	18.3	28.9	48.8
1,000 to 2,499	20.4	(1)	(1)	(1)

[1] Quartile rates were not derived because fewer than 25 establishment reports were included in the industry employment-size group.

NOTE: If data are not available for your firm's employment-size group, use the category closest to your firm's employment level or the all-sizes category for your industry in your evaluation.

KEEP ABREAST OF THE ECONOMY



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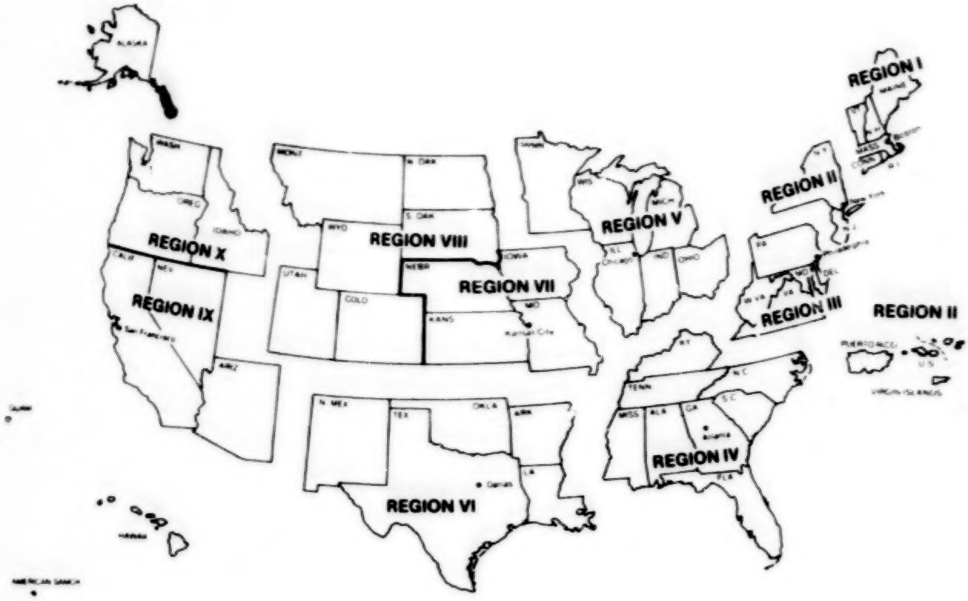

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